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INTERFERON LAMBDA WITH REMDESIVIR AS A POTENTIAL TREATMENT OPTION IN COVID-19

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Dear Editor,

we read the article by Grein et al. [1] published in New England Journal of Medicine with interest. The new SARS-like coronavirus (now named SARS-CoV-2) that emerged in December 2019 has been shown to be closest related (~88%) to two bat-derived SARS-like CoVs (bat-SL-CoVZC45 and bat-SL-CoVZXC21), with ~79% overall sequence identity to SARS-CoV and ~50% to MERS-CoV [2]. Remdesivir is well known in antiviral treatment of coronaviruses (SARS, MERS) [3], hence its consideration for SARS-CoV-2 therapy. However, we must remember that the coronavirus induces the endogenous expression of IFN-λ and/or blocks IFN-λ, affecting inflammatory responses and mechanisms of tissue damage and repair. The main function of IFN-λ is to prevent viral infection by establishing an antiviral state and, if infected, to slow down viral replication and dissemination. IFN-λ acted as a unique immunomodulatory agent by modifying transcriptional and non-translational neutrophil responses, which might permit a controlled development of the inflammatory process [4]. In vitro, treatment with IFN-λ showed potency against a variety of viruses, including SARS-CoV-1 and MERS-CoV [5], and currently pegylated IFN-λ1 (peg-IFN-λ1) is the only IFN-λ currently available as a therapeutic agent.

In summary, to increase the therapeutic effect, it is therefore worth considering combined treatment of COVID-19 patients by using interferon lambda with Remdesivir.

Conflict of interest

The authors declare no conflict of interest.

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